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REMARKS

Claims 1-18 and 20-24 remain pending in the application. Claims 1, 4, 18, and 24 have been amended such that the claims are drawn to the specific sequences set forth in the present application. Claims 33-41 have been cancelled. These amendments are made solely to further prosecution and Applicants reserve the right to file continuing applications to pursue the cancelled subject matter. It is believed that the amendments place the claims in condition for allowance. The amendments, at least, reduce the issues for appeal. Support for the claim amendments can be found in the original claims. Therefore, no new matter has been added by way of amendment. Entry of the amendments is respectfully requested.

Reexamination and reconsideration of the application as amended are respectfully requested.

The Objection to the Specification Should Be Withdrawn

The specification was objected to because it contained an embedded hyperlink. The specification was amended on page 22 to remove the hyperlink. Accordingly, the objection has been obviated and should be withdrawn.

The Rejection of the Claims Under 35 U.S.C. §112, First Paragraph, Should Be Withdrawn

Claims 1-18, 20-24, and 33-41 were rejected under 35 U.S.C. §112, first paragraph. The Examiner indicates that the subject matter was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention. This rejection is respectfully traversed.

The previous claims were drawn to SEQ ID NO:7 and SEQ ID NO:8, a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:9, as well as sequences having at least 80% identity to SEQ ID NO:7 and SEQ ID NO:8, and sequences that hybridize to SEQ ID NO:7 and SEQ ID NO:8. In contrast to the Examiner's arguments, this genus of nucleotide molecules is adequately described in the specification. The Examiner appears to have misinterpreted the claims as being drawn to any P-glycoprotein. In contrast, Applicants' claims

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are drawn to sequences defined by a structure - the nucleotide sequences set forth in SEQ ID NO:7 or SEQ ID NO:8.

Furthermore, as Applicants have pointed out, the specification on page 47 discloses that multiple alignment results show that overall *Dw3* is 92% and 91.8% identical to the maize *Br2* gene at the nucleotide level and at the amino acid level, respectively. The BR2 protein is known to have an extensive sequence and structural similarity with the multidrug-resistance (MDR)-like gene-encoded P-glycoproteins and that the BR2 protein shares more than 67% amino acid sequence identity with the protein encoded by the *Arabidopsis* P-glycoprotein gene, *AtPGP1*, which was disclosed by Dudler *et al.* ((1992) *J. Biol. Chem.* 267:5882-5888). See, U.S. Provisional Application Serial No. 60/164,886 entitled "Genes and Methods for Manipulation of Growth" filed November 12, 1999, which was incorporated by reference in the instant specification. Furthermore, those of ordinary skill in the art would be familiar with the teachings of Sidler *et al.* ((1998) *Plant Cell* 10:1623-1636) on *AtPGP1* and the P-glycoprotein encoded thereby. Sidler *et al.* teach that a nucleotide sequence encoding a P-glycoprotein can be used to modify the growth of plants. In particular, Sidler *et al.* teach that antisense expression of an *AtPGP1* nucleotide sequence in transgenic *Arabidopsis* plants can reduce the height of a plant and that the expression of an *AtPGP1* nucleotide sequence in the sense direction in transgenic *Arabidopsis* plants can increase the height of the plant.

Therefore, the Examiner's statement that only a single species of the claimed genus is described is incorrect. Accordingly, the previously pending claims were adequately described in the specification.

However, to further prosecution, Applicants' claims have been limited to the particular nucleotide sequences, SEQ ID NO:7 and SEQ ID NO:8, and a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:9 and complements thereof. These sequences are fully described in the specification. Accordingly, the rejection should not be applied to the amended claims.

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The Rejection of the Claims Under 35 U.S.C. §112, First Paragraph, for Lack of Enablement Should be Withdrawn

Claims 1-18, 20-24, and 33-41 were rejected under 35 U.S.C. §112, first paragraph, as lacking enablement. This rejection is respectfully traversed.

As Applicants have indicated in their previous responses, the specification enables those of ordinary skill in the art to make and use the invention. With the exemplary disclosed nucleotide sequences of SEQ ID NO:7 and SEQ ID NO:8, those of ordinary skill in the art can readily determine the nucleic acid sequence of a nucleic acid molecule, as well as the percent identity between any two sequences. Furthermore, as disclosed in the specification, routine assays are known in the art that can be used by those of ordinary skill in the art to determine whether a nucleotide encodes a P-glycoprotein that controls plant growth. Accordingly, the previously pending claims met the requirements of 35 U.S.C. §112, first paragraph.

However, to further prosecution, the claims have been amended to be drawn to SEQ ID NO:7, SEQ ID NO:8, or a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:9, and complements thereof. The Examiner has indicated that the specification is enabling for these sequences. Accordingly, the rejection should be withdrawn as applied to the present claims. Applicants reserve the right to file continuing applications drawn to the cancelled subject matter.

The Rejection of the Claims Under 35 U.S.C. §102(b) and 35 U.S.C. §103 Should Be Withdrawn

Claims 1-6, 9, 11-13, 16, 18, 20, 21, and 24 were rejected under 35 U.S.C. §102(b) and claims 7, 9, 10, 14, 15, 17, 22, and 23 were rejected under 35 U.S.C. §103(a) as unpatentable over Sidler *et al.* The Examiner maintained this rejection and argued that Sidler discloses an isolated nucleotide molecule that would hybridize under the claimed stringency conditions to SEQ ID NO:7 or SEQ ID NO:8. Applicants disagree with the Examiner's conclusion. See, for example, the arguments submitted in our previous response filed March 4, 2003. However, to further prosecution, the claims are limited to particular nucleotide sequences. Accordingly, the rejection should be withdrawn.

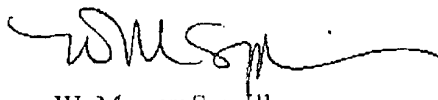
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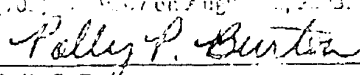
The Double Patenting Rejection Should Be Withdrawn

Claims 1-18, and 20-24 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of co-pending Application No. 09/711,562. As Applicants have limited their claims to specific nucleotide sequences, the rejection has been obviated and should be withdrawn.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,


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